



**EPA REGION 10
ENFORCEMENT and COMPLIANCE ASSURANCE DIVISION
DRINKING WATER ENFORCEMENT PROGRAM**

**PROJECT TITLE: WARM SPRINGS WATER TREATMENT PLANT
... PERSONNEL TRAINING ...**

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**PROJECT DELIVERY GROUP, LLC
STATEMENT OF WORK**

**THE FOLLOWING SETS OUT A SCOPE OF WORK TO REVIEW
OPERATING PROCEDURES AT THE CONFEDERATE TRIBE of WARM
SPRINGS, DRY CREEK, WATER TREATMENT FACILITY, AND PROVIDE
APPROPRIATE SUPPORT TRAINING TO ENABLE THE FACILITY TO
OPERATE AND PRODUCE SAFE, SUFFICIENT, AND RELIABLE POTABLE
WATER.**

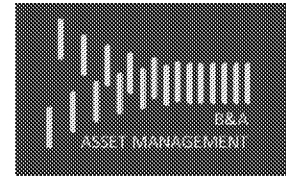
INTRODUCTION

In late May 2019 EPA issued the Confederate Tribes of Warm Springs a notice of compliance concerning the operation and maintenance of their water system with emphasis on the Dry Creek Water Treatment Facility.

Several action items were listed for immediate compliance including, but not limited to:

1. Follow the Coagulant SOP
2. Use the correct reagents for analysis in association with colorimetry
3. Remove sludge from the Sedimentation system (now completed and placed in a planned maintenance cycle)

These items are simple examples of operator inexperience and lack of appropriate knowledge to ensure operational items function to their optimum capability. Simple guidance and support could change this situation relatively rapidly.



This proposal from Project Delivery Group (PDG) and Buchanan And Associates (B&A) offers to provide that guidance and support (training) to enable the operators at the water treatment plant to perform their tasks appropriately, enabling the facility to produce the best quality and quantity of potable water it can, given its state of repair.

PURPOSE:

PDG/B&A wishes to enable the operators at the Warm Springs, Dry Creek, Water Treatment Facility to be able to successfully operate the facility to its optimum capability given its current, and future improved condition, such that the water quality and quantity produced by the facility becomes consistent and reliable meeting all compliance regulations and other agreed levels of service.

PDG/B&A will provide on-site, hands-on training to the Warm Springs Tribal water treatment plant operators to enable optimized operations of the surface water treatment plant.

TIMEFRAME:

PDG/B&A propose this training be undertaken at the earliest possible convenience of the Tribes Staff, the training personnel, and EPA funding appropriation. Item 1 through 3 below shall be completed no later than mid-December 2019 and item 4 as repair and replacement work is completed through 2020.

PDG/B&A propose that the work be carried out in the following manner:

1. It is anticipated there will be five hours of off-site preparation time.
2. A one day look and learn exercise by the trainer to observe and critique the current O&M daily practices, followed by:
3. Two four-hour classroom lectures giving feedback and guidance to all operators, followed by:
4. Eight two-hour hands-on training sessions with the individual/groups of operators pertaining to specific water treatment plant operational processes, practices, and procedures.
5. It is anticipated there will be eight hours of reporting time.
6. In the future, following upgrading of the facilities provide ongoing hands-on training to integrate the new assets and ensure continued improvement in operations and optimization of the surface water treatment facilities. The extent of this element will be subject to the amount of additional funding being available at the time of need. For the purposes of this proposal allow 8 hours per repaired item for preparation, onsite training, and reporting

This is a total on site time commitment for element 1-3 of four eight-hour days. Additional time will be spent off site in preparation and reporting.



BACKGROUND:

The Warm Springs Tribe owns and operates a surface water treatment plant that is nearly 40 years old and currently operating well beyond its operational lifespan. However, the surface water treatment plant must continue to supply water to approximately 3800 customers for at least the next 5-10 years, while a new plant (currently being designed and largely funded by IHS) is constructed and online.

Region 10 Drinking Water Enforcement Program issued an emergency order under Section 1431 of the SDWA that requires the Tribe to take actions including upgrades to equipment and work practices to remedy the root causes causing both high turbidity, low disinfectant levels, and low/ loss of pressure events in the distribution system.

To this end:

PDG/B&A have an ongoing relationship with Warm Springs Tribe regarding the Potable Water Wastewater and Solid waste management. They were recently engaged by Warm Spring to undertake the emergency repair of the Shitike Creek river crossing. The tribe is planning on utilizing PDG/B&A's service for the engineering assessment as required under the SDWA 1431 order.

Accordingly, PDG/B&A have a unique and singular relationship with the Warm Springs Tribe community which enable us to provide personalized service with specific understand of the Asset Management issues for the tribal utilities.

The Tribe has engaged PDG/B&A to coordinate the repair/replacement of the key pressure/flow control stations within a budget constrained by a HUD grant of \$450k. It is estimated a further \$300K-\$400K will be required to complete that work.

PDG/B&A have undertaken a preliminary review of the water treatment facility and have made the following superficial observations:

1. Much of the plant is in poor of failing physical state, and is of high risk of failure
2. Day-to-day operations are falling behind due to lack of knowledge and experienced knowhow, for which immediate staff training would ensure significant operational improvement in the short term

Under the 1431 Order, the Tribe must undergo an engineering assessment and materials survey of the treatment plant and associated distribution system and present to EPA an action plan to act upon the recommendations of that assessment. This will include equipment upgrades and process changes for which tribal utility staff will need long term training to ensure proper water plant operation and safe drinking water, subject to additional funds being available at the time.



Q&A

1. What are we getting for the money we provide the vendor?

Assurance and confirmation of adequate training for the operation of the existing processes and equipment to address underlying operational issues that gave rise to the SDWA 1431 Order. And in the future ongoing operative training to integrate the physical improvements made to the facility over the next six months to a year. The improvement will be based on the recommendations provided through our engineering assessment.

2. What do we want from them or expect from them – services?

On-site, hands-on training to ensure existing processes and equipment are operated to the maximum potential by tribal operators. And that current SOPs reflect those capabilities.

The training shall contain an agenda and after-report confirming all these items were covered and operators gained needed expertise.

The beneficiary of this training will be the Confederate Tribes of Warm Springs and all training activities will be carried out at their Dry Creek Water Treatment Facilities.

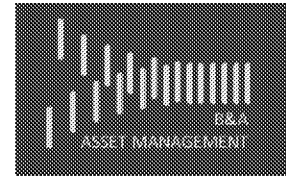
The Tribe may expect to gain operators that are better prepared to operate the Dry Creek Water Treatment Facility to produce safe potable water on a consistent basis.

The Tribe's Water Treatment Staff may expect to have a better understanding of their roles and responsibilities in operations, maintenance, and management in the production of the potable water distributed to the Warm Springs community. This training may also aid in the ability for the operators to gain CUE/CPE's for their operators' certificates.

EPA may expect that their funds have been appropriately used to ensure in facility optimization and that their request for appropriate operations of the Water treatment facility is initiated for future improvement and development.

PDG/B&A will provide:

1. An operational review of the existing operations processes, practices and procedures
2. Training to the operators to improve their knowledge and ability to operate the current Water Treatment Facility
3. Guidance notes and Draft SOPs for the operative to follow and guidance as they move forward to optimize potable water production
4. Close out report



To fulfil PDG/B&A's objective of enhancing the operators ability to operate the water treatment facility we will expect the operators to be available, engaged, and ready to participate in the studies/reviews, activities, and discussions/communications we will undertake over the initial four-day training period and subsequent facility training as repairs are made.

PROCESS ELEMENTS

The following are the list of unit operations PDG/B&A will address in this training exercise:

1. Raw Water Intake, transmission, and pumping
2. Coagulation
3. Flocculation
4. Sedimentation, including sludge disposal
5. Filtration, including backwash and wash water disposal
6. Stabilization
7. Disinfection
8. High lift Pumping
9. Monitoring, Instrumentation, Control, Automation, and Reporting (MICAR)

POINT OF CONTACT:

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